channels being defined to comprise information channels and control channels, the downlink logical channels using the downlink time slots; and

defining uplink logical channels from a mobile station to a base station, the uplink logical channels being defined to comprise information channels reserved for information transmission and a reservation request channel (R), on which the mobile station requests the reservation of a connection for transmitting packet data, the uplink logical channels using the uplink time slots; wherein

in the TDMA frames a number of the uplink logical channels and downlink logical channels are allocated for packet data transmission, each uplink logical channel having a variable number of uplink time slots and each downlink logical channel having a variable number of downlink time slots, the number of allocated time slots in each logical channel being a function of one of a symmetricity and an asymmetricity of the packet data transmission, the total number of allocated time slots for said mobile station being either an even number or an odd number.

41. (Amended) A method for transmitting packet data in the air interface of a digital cellular system based on time division multiple access (TDMA) having uplink and downlink time slots a plurality of which comprise an uplink and a downlink TDMA frame, respectively, comprising the steps of:

defining downlink logical channels from a base station to a cell served by the base station, the downlink logical

channels being defined to comprise information channels and control channels, the downlink logical channels using the downlink time slots; and

defining uplink logical channels from a mobile station to a base station, the uplink logical channels being defined to comprise information channels reserved for information transmission and a reservation request channel (R), on which the mobile station requests the reservation of a connection for transmitting packet data, the uplink logical channels using the uplink time slots; wherein

in the TDMA frames a number of the uplink logical channels and downlink logical channels are allocated for packet data transmission, each uplink logical channel having a variable number of uplink time slots and each downlink logical channel having a variable number of downlink time slots, the number of allocated time slots in each logical channel being a function of one of a symmetricity and an asymmetricity of the packet data transmission, the total number of allocated time slots for said mobile station being either an even number or an odd number;

for packet data transmission there are reserved n time slots, one of which is reserved for transmitting control information and packet data and the other of which is reserved solely for transmitting the packet data.

43. (Amended) A method for transmitting packet data in the air interface of a digital cellular system based on time division multiple access (TDMA) having uplink and downlink time

slots a plurality of which comprise an uplink and a downlink TDMA frame, respectively, comprising the steps of:

defining downlink logical channels from a base station to a cell served by the base station, the downlink logical channels being defined to comprise information channels and control channels, the downlink logical channels using the downlink time slots; and

defining uplink logical channels from a mobile station to a base station, the uplink logical channels being defined to comprise information channels reserved for information transmission and a reservation request channel (R), on which the mobile station requests the reservation of a connection for transmitting packet data, the uplink logical channels using the uplink time slots; wherein

in the TDMA frames a number of the uplink logical channels and downlink logical channels are allocated for packet data transmission, each uplink logical channel having a variable number of uplink time slots and each downlink logical channel having a variable number of downlink time slots, the number of allocated time slots in each logical channel being a function of one of a symmetricity and an asymmetricity of the packet data transmission, the total number of allocated time slots for said mobile station being either an even number or an odd number;

for the case where the transmission is symmetric and is originated by or terminated by the mobile station, only data packets are transmitted in one direction, and only

acknowledgements are transmitted in the opposite direction.

58. (Amended) A method for transmitting packet data in the air interface of a digital cellular system based on time division multiple access (TDMA) having uplink and downlink time slots a plurality of which comprise an uplink and a downlink TDMA frame, respectively, comprising the steps of:

defining downlink logical channels from a base station to a cell served by the base station, the downlink logical channels being defined to comprise information channels and control channels, the downlink logical channels using the downlink time slots; and

defining uplink logical channels from a mobile station to a base station, the uplink logical channels being defined to comprise information channels reserved for information transmission and a reservation request channel (R), on which the mobile station requests the reservation of a connection for transmitting packet data, the uplink logical channels using the uplink time slots; wherein

in the uplink and the downlink TDMA frames a number of the uplink logical channels and downlink logical channels are allocated for packet data transmission, each uplink logical channel having a variable number of uplink time slots and each downlink logical channel having a variable number of downlink time slots, the respective number of allocated uplink time slots in an uplink logical channel and downlink time slots in a downlink logical channel

being one of an equal number and an unequal number, in dependence upon the demand for packet data transmission in the uplink direction and respectively upon the demand for packet data transmission in the downlink direction, the total number of allocated time slots for said mobile station being either an even number or an odd number.

60. (Amended) A method for transmitting packet data in the air interface of a digital cellular system based on time division multiple access (TDMA) having uplink and downlink time slots a plurality of which comprise an uplink and a downlink TDMA frame, respectively, comprising the steps of:

defining downlink logical channels from a base station to a cell served by the base station, the downlink logical channels being defined to comprise information channels and control channels, the downlink logical channels using the downlink time slots; and

defining uplink logical channels from a mobile station to a base station, the uplink logical channels being defined to comprise information channels reserved for information transmission and a reservation request channel (R), on which the mobile station requests the reservation of a connection for transmitting packet data, the uplink logical channels using the uplink time slots; wherein

in the uplink and the downlink TDMA frames a number of the uplink logical channels and downlink logical channels are allocated for packet data transmission, each uplink logical channel having a variable number of uplink time

slots and each downlink logical channel having a variable number of downlink time slots, the respective number of allocated uplink time slots in an uplink logical channel and downlink time slots in a downlink logical channel being one of an equal number and an unequal number, in dependence upon the demand for packet data transmission in the uplink direction and respectively upon the demand for packet data transmission in the downlink direction, the total number of allocated time slots for said mobile station being either an even number or an odd number;

for packet data transmission there are reserved n time slots, one of which is reserved for transmitting control information and packet data and the other of which is reserved solely for transmitting the packet data.

57.

62. (Amended) A method for transmitting packet data in the air interface of a digital cellular system based on time division multiple access (TDMA) having uplink and downlink time slots a plurality of which comprise an uplink and a downlink TDMA frame, respectively, comprising the steps of:

defining downlink logical channels from a base station to a cell served by the base station, the downlink logical channels being defined to comprise information channels and control channels, the downlink logical channels using the downlink time slots; and

defining uplink logical channels from a mobile station to a base station, the uplink logical channels being defined to comprise information channels reserved for information

transmission and a reservation request channel (R), on which the mobile station requests the reservation of a connection for transmitting packet data, the uplink logical channels using the uplink time slots;

in the uplink and the downlink TDMA frames a number of the uplink logical channels and downlink logical channels are allocated for packet data transmission, each uplink logical channel having a variable number of uplink time slots and each downlink logical channel having a variable number of downlink time slots, the respective number of allocated uplink time slots in an uplink logical channel and downlink time slots in a downlink logical channel being one of an equal number and an unequal number, in dependence upon the demand for packet data transmission in the uplink direction and respectively upon the demand for packet data transmission in the downlink direction, the total number of allocated time slots for said mobile station being either an even number or an odd number;

for the case where the transmission is symmetric and is originated by or terminated by the mobile station, only data packets are transmitted in one direction, and only acknowledgements are transmitted in the opposite direction.

Please add new claim 74 as follows:

74. The method of claim 39, wherein at some times the number of allocated time slots for said mobile station is an odd number of time slots.